

Background and Summary of Net Cost and Payment Rate Considerations

Introduction

The Electronic Waste Recycling Act of 2003 (SB 20, Sher), as amended, established a variety of measures intended to develop an infrastructure to provide convenient recycling opportunities, reduce the inappropriate disposal of certain electronic products, limit the sale of certain hazardous products in the state, and require notification and/or reporting of product sale and waste management activities.

The most publicly visible aspect of the Act is the covered electronic waste (CEW) recovery and recycling payment system, administered by the Department of Resources Recycling and Recovery (CalRecycle), in partnership with the Department of Toxic Substances Control (DTSC) and the Board of Equalization (BOE). This system is funded through a fee paid by consumers of covered electronic devices at the time of retail purchase, and is operated to compensate authorized collectors and recyclers of CEW through standard payment rates designed to offset the average cost of providing recovery and recycling services.

CalRecycle has the responsibility to evaluate the standard statewide CEW recovery and recycling payment rates every two years and to adjust them as warranted to reflect the average net costs of providing the CEW recovery and recycling services prescribed by the Act. The payment rates have been adjusted only once since the program's operational inception. Any adjustments to the payment rates must be made by the statutory deadline for this fiscal year of July 1, 2010. ***Based on an analysis of data submitted through required industry reporting, as well as stakeholder input and ongoing monitoring of industry trends, program staff is recommending that no change be made to either the recovery or recycling payment rates.***

Background Information

The Electronic Waste Recycling Act of 2003 (Act), commonly referred to as SB 20 [(Sher, 2003), amended by SB 50 (Sher, 2004), and again amended by AB 575 (Wolk, 2005)], established a comprehensive program to finance the end-of-life management of certain (covered) electronic devices. The program is financed through an electronic waste recycling fee paid by consumers at the point of retail sale of new covered devices. These revenues are used to administer the programs established by the Act, including the disbursement of recovery and recycling payments to approved collectors and recyclers of covered electronic waste (CEW).

A CEW is a discarded covered electronic device. Covered electronic devices are defined by statute as video display devices with a screen size greater than four inches that are identified by the Department of Toxic Substances Control (DTSC) after testing determines that they are hazardous when disposed.

Currently, covered electronic devices include:

- Cathode ray tubes (CRT) and CRT-containing devices (including CRT televisions and computer monitors);
- Liquid Crystal Display (LCD)-containing televisions and monitors;
- Laptop computers containing LCD screens;
- Gas plasma display televisions; and
- Personal DVD players.

The Act charges CalRecycle with principle responsibility for administering the financial aspects of the CEW payment system. This includes establishing a rate of payment for the proper recovery (collection, consolidation and transportation) and recycling (receipt, processing and disposition) of CEW generated by consumers in California. The recovery payment rate is currently set in regulation at \$0.16 per pound, and the combined recovery and recycling payment is currently set \$0.39 per pound, effectively setting the recycling payment rate at \$0.23 per pound. CalRecycle makes the combined payment to approved recyclers in response to complete and compliant payment claims that document the “cancellation” of eligible CEW. Approved recyclers are in turn required to make the recovery payment within certain timeframes to approved collectors for all eligible and properly documented CEW transferred from the collector to the recycler.

Statutory Authority to Adjust Payment Rates

The recovery and recycling payment rates were established at the beginning of the program through a combination of statute and emergency regulation. The rates were set through market research, stakeholder input, and California Integrated Waste Management Board (CIWMB) consideration. They remained unchanged from January 1, 2005, when eligible recovery and recycling activities began, until July 2008. At that point, the CIWMB reconsidered the payment rates and determined that an adjustment from a combined \$0.48 per pound to a combined \$0.39 was necessary to better reflect industry’s lower reported costs. CalRecycle, as the successor to the CIWMB’s obligations, has the authority and responsibility to revisit and establish new payment rates, as warranted, every two years. Pursuant to statute, CalRecycle must make adjustments, if needed, on July 1, 2010.

Any adjustment to the recovery and/or recycling payment rates will impact the pace at which the fund is expended and will thus affect the long-term solvency of the program. However, the Act dictates that adjustment of the payment rates be guided by the average net cost of collectors and recyclers providing the services that fulfill the intent of the Act, not as a means to balance the fund. Specifically, the following sections of the Public Resources Code (PRC) will guide the CalRecycle’s analysis:

“PRC 42477. (a) On July 1, 2004, or as specified otherwise in Section 25214.10.1 of the Health and Safety Code, and on July 1 every two years thereafter, the board (CalRecycle) in collaboration with the department (DTSC) shall establish an electronic waste recovery payment schedule for covered electronic wastes generated in this state to cover the net cost for an authorized collector to operate a free and convenient system for collecting, consolidating and transporting covered electronic wastes generated in this state....”

“PRC 42478. (a) Except as provided in subdivision (b), on July 1, 2004, or as specified otherwise in Section 25214.10.1 of the Health and Safety Code, and on July 1 every two years thereafter, the board (CalRecycle), in collaboration with the department (DTSC), shall establish a covered electronic waste recycling payment schedule for covered electronic wastes generated in this state to cover the average net cost for an electronic waste recycler to receive, process, and recycle each major category, as determined by the board, of covered electronic waste received from an authorized collector....”

Collaboration with DTSC

As noted above in the statutory citations, CalRecycle is required to make any adjustments to the recovery and/or recycling payment rates in collaboration with DTSC. This collaboration has been accomplished through ongoing coordination and joint implementation of the Act's provisions. Specifically, CalRecycle program staff communicates regularly with DTSC regulatory and compliance staff to discuss program progress and challenges, to ensure participant compliance, and to align programmatic efforts.

Public Resources Code (PRC) 42474.4 empowers DTSC to enforce all aspects of the Act and its implementation using DTSC's hazardous waste management authority. Furthermore, PRC 42476(f)(1) states that CalRecycle may pay an electronic waste recycling and/or recovery payment only if *"...The covered electronic waste, including any residuals from the processing of the waste, is handled in compliance with all applicable statutes and regulations,"* many of which fall under the jurisdiction of DTSC.

Net Cost Reports Inform Payment Rate Considerations

To inform the evaluation of payment rates, regulations governing the payment system allow CalRecycle to require that approved collectors and recyclers submit annual Net Cost Reports documenting revenues and costs associated with the management of CEW during the previous calendar year. The latest cycle of reports was due to CalRecycle on or before March 1, 2010.

Specific regulatory language relating to the Net Cost Report can be found in Title 14 of the California Code of Regulations (CCR) section 18660.10. This regulation provides the context for the Net Cost Report requirement, specifically:

"(a) To adjust the statewide recovery and recycling payment rates, establish future payment schedules and adjust the consumer fees, (CalRecycle) shall periodically update information concerning the net costs of CEW recovery and CEW recycling."

Given the fact that the nature of participating organizations varies considerably based on size, location, business model, target customer base, scope of materials handled, available markets, and other factors, there is a substantial range of costs and revenues reported. This is to be expected. The industry being fostered by the CEW payment system, while not new, continues to evolve as the collection infrastructure evolves, recycling processes are optimized, and markets for derived residuals fluctuate, and as the CEW payment system itself influences how materials flow and business decisions are made.

Net Cost Report Validation

The CalRecycle electronic waste recycling program has retained the services of auditors from the Department of Finance (DOF) to review the supporting documentation associated with a sampling of submitted Net Cost Reports. The first review was performed in 2008 when DOF examined approximately a dozen reports representing 2007 recovery and recycling operations. This review, conducted onsite at the location of the selected participants, was intended to determine if the revenues and costs reported were substantiated (validated) by available documentation.

The validation exercise was not a standard audit. It involved a records review using procedures agreed upon ahead of time to standardize the outcome. The aim of the exercise was to determine the confidence that the State should have in the general accuracy and reliability of the data submitted as part of the Net Cost Report requirement. Validation subjects were selected by program staff on the grounds that they consisted of a representative range of participant sizes and operational models.

As a result of the 2008 validation exercise, program concluded that the cost and revenue data received through the Net Cost Report could be relied upon as an indicator of overall industry cost when taken in aggregate. Based on the results from the DOF exercise, although any one report may contain errors, the cumulative information in hundreds of reports could provide a reasonably accurate assessment of the industry and its trends.

In 2009, DOF auditors performed another Net Cost Report document review of reports reflecting 2008 operations, examining a much larger population of collectors and recyclers. The validation ratings assigned by DOF overall decreased from the previous year, with the auditors noting the following:

- A potential to under-report revenue derived from residual sales
- A potential for related businesses to inaccurately report revenues and/or costs
- The need for more specific guidance on report preparation, especially in the area of cost allocation

CalRecycle revised Net Cost Report guidance material to clarify that generally accepted accounting methods should be used in preparation of reports covering 2009, and reminded participants that the submittal of a false report would be considered a prohibited activity.

In spring 2010, DOF again performed a review of selected Net Cost Reports submitted for the 2009 operational year. While concerns about the ability of reporting entities to accurately allocate costs were raised, the overall results of the validation exercise were more favorable than the previous year, with examined recycler reports reflecting slightly better substantiated data than collector reports. The results of these DOF examinations are factored into program's recommendation to leave payment rates unchanged.

Findings

Findings from the Net Cost Reports covering recovery and recycling operations conducted in 2005 and 2006 indicated that initial recovery and recycling payment rates were more than sufficient to cover the reported costs of a majority of program participants. A continuing trend of lowering net costs was identified in the reports covering 2007, arguing strongly for the reduction in payment rates that occurred in 2008.

The analysis of Net Cost Reports covering operational year 2009 is detailed in Attachment 2. Once outlier data are excluded from weighted average calculations, reported costs per pound for 2009 appear to be slightly less than those reported in 2007, upon which previous payment rate reductions were based. However program is also aware that disruptions in the cathode ray tube (CRT) glass recycling industry, specifically the temporary loss of access to lower cost Mexican outlets, have raised certain operational

costs for some recyclers, especially beginning in late 2009. The uncertainties of commodity price fluctuations are discussed later in this summary.

Future Uncertainties

The data contained in the annually required Net Cost Reports is a snapshot of the past. Given the timing of reporting cycles, program staff relies partially on data that reflects operating conditions that may differ from current conditions when making any recommendation regarding payment rates. An examination of past trends in factors that affect costs and revenues reveals that the one certainty is change. The potential exists for substantial changes to occur at any time in costs such as labor, transportation, and facilities, as well as in revenues derived from commodities such as recovered metals, plastics, and components.

By weight, CRT glass is the most significant portion of the treatment residuals derived from the cancellation of CEW. CRT glass can be used as a feedstock in the manufacturing of new CRT devices, or can be a feedstock to primary or secondary lead smelting, wherein the silica acts as a flux to protect furnaces and the lead in the glass can be recovered. In general these are fairly low value uses, with the material preparation costs often exceeding the commodity value of the CRT glass. There are a limited number of destinations within North America that can use CRT glass as a smelter feedstock, and even fewer global destinations that can use CRT glass in the manufacture of new CRTs.

In late October 2009, the USEPA revoked all Acknowledgments of Consent that allowed for the export of CRT glass to processing facilities in Mexico. This was reported due to facility permitting concerns on the part of Mexican authorities. These facilities typically had provided relatively low cost outlets for CRT glass with charges in the range of a few cents per pound. California recyclers, who must ship derived CRT glass before submitting payment claims, were abruptly faced with higher cost alternatives that often ranged above ten cents per pound. Many recyclers chose to incur the higher costs and shipped glass to alternative markets, but several recyclers, including some of the largest volume recyclers, have instead stored CRT glass in anticipation of lower cost alternatives.

Program attempted to determine the potential impacts of CRT glass disposal costs by examining recycler Net Cost Reports, but found that glass disposition costs were reported in a variety of ways that may or may not have included transportation and other costs. Such reporting clouded the ability to arrive at a meaningful per pound destination average. Furthermore, the cost of managing glass appears to be strongly influenced by relationships within the industry, well beyond any basic market rate. Finally, any additional costs to program participants due to the disruption in CRT glass markets occurred so late in the 2009 reporting period that the Net Cost Reports may not have fully reflected them.

In response to stakeholders' expressed concerns regarding potential impacts of CRT glass management costs, program conducted a brief survey in an effort to decipher historical, current, and anticipated future CRT glass management costs. The response rate was limited, and the values reported were varied and not always supported by cost documentation (such as invoices) submitted as part of past claims. Future costs were predicted to range from one cent to nearly 20 cents per pound, with the average appearing to be around 12 cents per pound, which may be more reflective of current costs than anything else.

In response to the demand for CRT glass outlets, more than a couple large recyclers have invested in CRT glass beneficiation capabilities of their own, which could relieve them of dependence on other processors

and open up new market opportunities. However the actual long-term costs of this undertaking are unknown as are the marginal operating costs. Additionally, new and existing glass processors are opening or adding capacity outside of California. Finally, at least one of the Mexican facilities appears to be making progress on securing authorization to return to service. These factors should combine to keep CRT glass costs from spiraling out of control, and may even reduce them below industry expectations, though likely not as low as previously enjoyed. In general, staff is not aware of any economic indicators that can be reliably used to predict these future costs. Based on these considerations, staff concludes that there is no compelling evidence supporting an increase in payment rates based on these future uncertainties.

Conclusions and Recommendations

Data from the most recent Net Cost Report, which is a reflection of the CEW recovery and recycling industry's costs during 2009, does not directly indicate a need to change payments rates. In fact, the reported data, as evaluated by program staff, appear to demonstrate that overall costs have slightly decreased when compared to previous years. However this is admittedly a look into the past and not necessarily indicative of the future costs that the industry will incur and which the payment rates are intended to, on average, relieve.

There is much potential for continued innovation in CEW collection models, and for increased efficiency in the transactions between collectors and recyclers. The elective practice of recyclers paying collectors more than the required recovery payment rate has continued. And some collectors are known to be paying to secure quantities of CEW. This practice does not appear to be anticipated by the intent of the Act, which was simply to develop and provide a cost-free and convenient recycling infrastructure.

Despite the fact that the most recent data indicates overall industry costs may be slightly lower than what was used to substantially reduce the original combined payment rate from \$0.48 per pound to \$0.39 per pound in 2008, there is uncertainty in the scale of possible future cost increases for certain aspects of CEW recycling, most notably the management of CRT glass. Because of this, program staff recommends that the recovery and recycling payment rates remain unchanged at this time as a precaution against potential increased costs in the next two years ending July, 2012, during which CalRecycle does not have statutory authority to adjust payment rates.

Regulatory Implications

Should program's recommendation of no change to the recovery and recycling payments rates be approved, the existing payment rates will simply remain in place in existing regulation.

Contingencies

Should a future cost or revenue factor change so dramatically as to jeopardize the viability of the CEW recovery and recycling industry, or the fiscal integrity of the payment system, CalRecycle and/or program stakeholders could seek Legislative action to make statutory changes allowing for the payment rates to be revisited more frequently than biennially. Such a change would require additional resources in order to survey costs and recalculate rates, but it would reduce the perceived risk of setting payments rates for two years when economic volatility is causing anxiety for industry and government interests alike.